REMARKS

The Office examined claims 1-20 and rejected same. With this paper, the claims are unchanged.

Rejections under 35 USC §103

At section 3, on page 2 of the Office Action, claims 1-6, 8, 11-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sun (U.S. Patent No. 6,774,838) in view of Lau (U.S. Pat. No. 5,592,173).

Of the claims pending, claims 1, 11, 15 and 16 are independent.

The independent claims 1, 11, 15 and 16 all recite a ranging receiver using sensor signals provided by a motion sensor mechanically coupled to the ranging receiver, and the ranging receiver powering down selected components so as to put the ranging receiver in standby mode as opposed to fully active mode but not fully powered off based on whether the sensor signals indicate only at most insubstantial motion of the ranging receiver.

Regarding claims 1, 11, 15 and 16: The Office uses new grounds of rejection to reject claims 1 and 11, and now also claims 15 and 16 (first presented in response to the previous Office action). Applicant has argued that the invention as in independent claims 1 and 11 is not disclosed or suggested by Sun, because Sun fails to disclose or suggest a ranging receiver responsive to power control signals based on sensor signals indicating whether the ranging receiver is in motion, the power control signals for powering on or off selected components of the ranging receiver so as to put the ranging receiver in standby mode as opposed to fully active mode but not fully powered off. In response, the Office uses as a new ground of rejection the combination of Sun and Lau.

Thus, as agreed by the Office, Sun only discloses turning on or off power to a GPS receiver, and does not mention turning on or off power for selected components so as to put the ranging receiver in standby mode.

Sun discloses an oscillation switch 40 (Fig. 1) that sends an on/off signal to a power controller 20, that in response turns on or off power to a GPS receiver, and more specifically, to the GPS receiver in its entirety, i.e. all components.

Lau discloses a selection means 42 for determining a duty cycle for a GPS receiver. The selection means determines how long to keep the GPS receiver in standby mode. Ideally, the GPS receiver is kept in standby mode only so long as no appreciable error in position results from remaining in standby. In determining how long to keep the GPS receiver in standby, the selection means can use as an input a user indication of the length of standby, such as short or long. (See col. 10, line 14.) In addition, the selection means can use as an input rate of change of position information from earlier normal mode periods of operation. (See col. 9, line 47.)

Applicant respectfully submits that the changes to Sun to arrive at the invention based on the teachings of Lau are so wholesale in nature that it would not have been obvious to one of ordinary skill in the art at the time of the invention to change Sun according to the teachings of Lau so as to arrive at the invention as in the independent claims.

In Lau, the selection means 42 calculates a time duration for standby (col. 7, line 2). The selection means executes precoded software instructions stored in a memory in a microprocessor system 40, in its calculation of standby length. (See col. 7, line 3.) At col. 7, beginning line 13, Lau explains:

> A power supply 14 supplies operating power to the reference frequency oscillator 30, the microprocessor system 40, the selection means 42, the microprocessor clock 44, the RTC 70,

> and a power controller 60. The power controller 60 is controlled by the microprocessor system 40 to pass or to inhibit power to at least one of the following: the GPS antenna 12 at P1, the GPS frequency downconverter 50 at P2, the one or more output devices 16 at P3, the one or more input devices 18 at P5, and the one or more optional dead reckoning devices 20 at P4. … In low power standby mode the power controller 60 inhibits power by providing output voltages approximately equal to zero volts or ground voltage, by providing an open circuit so that current cannot pass, or by a combination of ground voltages and open circuits.

At col. 9, line 3, Lau goes on to explain that:

> To enter a low power standby mode, the microprocessor system 40 controls at least one of the following: the power controller 60 to inhibit operating power at P1, P2, P3, P4, or P5, the microprocessor clock 44 to inhibit the microprocessor clock signal to the microprocessor system 40, the system block clock register 84 to inhibit the system clock signal to the second sampler 92, and the channel clock register 82 to inhibit the system clock signal to the code correlator 88 and/or the carrier correlator 86.

So Sun teaches a simple arrangement of an oscillator switch providing only an on/off signal to a power controller 20, which then applies or turns off power to a GPS receiver in its entirety, i.e. there is no bus so as to allow the power controller to inhibit or apply power/ voltage to selected components of the GPS receiver. And Lau teaches a selection means and microprocessor 40 functioning so as to provide power on/ off signals for selected components to a power controller. In the case of limiting or turning off power to components whose power is directly controlled by the power controller 60, the power controller receives from the microprocessor 40 a command specific to the component to be powered down. Applicant respectfully submits that how to combine the simple oscillator switch with the selection means and microprocessor of Lau for turning off selected components is not at all obvious, from either a hardware or logical perspective. For example, from a hardware perspective, the power controller 20 would have to go; it does not interface with individual components of the GPS, nor with a microprocessor, but only with the GPS in its entirety and

with the time delay controller 42 (which is e.g. a controller of an ordinary RC discharge control circuit or logic circuit, as mentioned at col. 2, line 10). From a logical perspective, how is an indication from the oscillator switch that the GPS is stationary to be handled by the microprocessor 40, after a duty cycle is determined via selection means 42? Does the microprocessor depart from its calculated duty cycle whenever the oscillator switch sends an off signal? If so, then what components are to be turned off? Applicant respectfully submits that the approaches of Lau and Sun are so different as to cause one of ordinary skill in the art to shy away from combining there teachings, and so the invention as claimed would hardly have seemed obvious to one of ordinary skill in the art based on the combination of Sun and Lau made by the Office.

For the above reasons, and by virtue of at least the dependencies of the claims not argued but rejected under 35 USC §103, applicant respectfully requests that all the rejections under 35 USC §103 be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103

The Office Action rejects the other claims (namely claim 7, 9-10, and 20) under 35 U.S.C. § 103(a) as unpatentable over Sun and Lau further in view of other references.

The claims so rejected depend from one or another of claims 1, 11, 15 and 16, and by virtue of these dependencies are believed allowable. Accordingly, applicant respectfully requests that the rejections under 35 USC §103 be reconsidered and withdrawn.

Conclusion

For all the foregoing reasons it is believed that all of the claims of the application are in condition for allowance and their passage to issue is earnestly solicited. Applicant's

attorney urges the Examiner to call to discuss the present response if anything in the present response is unclear or unpersuasive.

Respectfully submitted,

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